

APPENDIX C

FINAL REGULATORY FLEXIBILITY ANALYSIS (for 2nd R&O)

1. As required by the Regulatory Flexibility Act (RFA),¹ an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Report and Order and Further Notice of Proposed Rule Making (R&O and FNPRM)*² in WT Docket 99-87. The Commission sought written public comment on the proposals in the *FNPRM*. This present Final **Regulatory Flexibility Analysis** (FRFA) conforms to the RFA.³

1. Reason for, and Objectives of, the *Second Report and Order*

2. The *Second Report and Order* (2nd R&O) adopts rules to promote the transition to narrowband technology in bands 150-174 MHz and 421-512 MHz. Specifically, we amend our rules to impose a deadline for migration to 12.5 kHz technology for non-public safety Private Land Mobile Radio Service (PLMRS) systems operating on those bands, beginning January 1, 2013 and for public safety systems operating on those bands, beginning January 1, 2018. In addition, we amend our rules to prohibit the certification of any equipment capable of operating at one voice path per 25 kHz of spectrum, *i.e.*, multi-mode equipment that includes a 25 kHz mode, beginning January 1, 2005. We also prohibit the manufacture and importation of 25 kHz equipment (including multimode equipment that can operate on a 25 kHz bandwidth) beginning January 1, 2008. We amend our rules to prohibit any applications for new operations using 25 kHz channels beginning six months after notice of the 2nd R&O is published in the Federal Register. Further, we amend our rules to prohibit any modification applications that expand the authorized contour of an existing licensee if the bandwidth subject to the modification application is greater than 12.5 kHz, beginning six months after notice of the 2nd R&O is published in the Federal Register. These actions will effect a transition to a narrowband channel plan. The resulting gain in efficiency will ease congestion on the PLMRS channels in these bands.

11. Summary of Significant Issues Raised by Public Comments in Response to the IRFA.

3. No comments or reply comments were filed in direct response to the IRFA. The Commission has, however, reviewed the general comments that may impact small businesses. Much of the potential impact on small businesses arises from the mandatory migration to 12.5 kHz technology beginning on January 1, 2013, the ban on importation and manufacture of 25 kHz equipment after January 1, 2008 and the freeze on new 25 kHz applications. The costs associated with replacement of current systems were cited in opposition to mandatory conversion proposals.

III. Description and Estimate of the Number of Small Entities to Which the Rules Apply

4. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the rules adopted. The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small

¹ See U.S.C. § 603. The RFA, see 5 U.S.C. § 601 *et seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

² Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended; Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies; Establishment of Public Service Radio Pool in the Private Mobile Frequencies Below 800 MHz; Petition for Rule Making of the American Mobile Telecommunications Association, *Report and Order and Further Notice of Proposed Rule Making*, WT Docket No. 99-87, RM-9332, RM-9405, RM-9705, 15 FCC Rcd 22709 (1999) (“*R&O and FNPRM*”).

³ See 5 U.S.C. § 604.

organization.” and “small governmental jurisdiction.”⁴ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.⁵ A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).⁶ A small organization is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.” Nationwide, as of 1992, there were approximately 275,801 small organizations.⁷

5. The rule changes effectuated by this 2nd R&O apply to licensees and applicants of private land mobile frequencies in the 150-174 MHz and 421-512 MHz bands, and to manufactures of radio equipment.

6. *Private Land Mobile Radio* (PLMR). PLMR systems serve an essential role in a vast range of industrial, business, land transportation and public service activities. These radios are used by companies of all sizes that operate in all U.S. business categories. Because of the vast array of PLMR users, the Commission had not developed, nor would it be possible to develop, a definition of small entities specifically applicable to PLMR users. For the purpose of determining whether a licensee is a small business as defined by the Small Business Administration (SBA), each licensee would need to be evaluated within its own business area. The Commission’s fiscal year 1994 annual report indicates that, at the end of fiscal year 1994, there were 1,087,276 licensees operating 12,481,989 transmitters in the PLMR bands below 512 MHz.⁹ Further, because any entity engaged in a commercial activity is eligible to hold a PLMR license, these rules could potentially impact every small business in the U.S.

7. *Public Safety*. Public safety radio services include police, fire, local governments, forestry conservation, highway maintenance, and emergency medical services.” The SBA rules

⁴ See 5 U.S.C. § 601(6).

⁵ 5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in 15 U.S.C. § 632). Pursuant to the RFA, the statutory definition of a small business applies unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.

⁶ Small Business Act, 5 U.S.C. § 632 (1996).

⁷ 5 U.S.C. § 601(4).

⁸ 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to the Office of Advocacy of the Small Business Administration).

⁹ See Federal Communications Commission, 60th Annual Report. Fiscal Year 1994 at 120-121.

¹⁰ With the exception of the special emergency service, these services are governed by Subpart B of Part 90 of the Commission’s rules. 47 C.F.R. §§ 90.15 through 90.27. The police service includes 26,608 licensees that serve state, county and municipal enforcement through telephony (voice), telegraphy (code) and teletype and facsimile (printed material). The fire radio service includes 22,677 licensees comprised of private volunteer or professional fire companies as well as units under governmental control. The local government service that is presently comprised of 40,512 licensees that are state, county or municipal entities that use the radio for official purposes not covered by other public safety services. There are 7,325 licensees within the forestry service which is comprised of licensees from state departments of conservation and private forest organizations who set up communications networks among fire lookout towers and ground crews. The 9,480 state and local governments are licensed to highway maintenance service provide emergency and routine communications to aid other public safety services to keep main roads safe for vehicular traffic. The 1,460 licensees in the Emergency Medical Radio Service (EMRS) use the 39 channels allocated to this service for emergency medical service communications related to the actual delivery of emergency medical treatment. 47 C.F.R. §§ 90.15 through 90.27. The 19,478 licensees in the special emergency service include medical services, rescue organizations, veterinarians, handicapped persons, disaster relief

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contain a definition for small radiotelephone (wireless) companies, which encompasses business entities engaged in radiotelephone communications employing no more than 1,500 persons." There are a total of approximately 127,540 licensees within these services. Governmental entities as well as private businesses comprise the licensees for these services. The RFA also includes small governmental entities as a part of the regulatory flexibility analysis.¹² "Small governmental jurisdiction" generally means "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000."¹³ As of 1992, there were approximately 85,006 such jurisdictions in the United States.¹⁴ This number includes 38,978 counties, cities and towns; of these, 37,566, or 96 percent, have populations of fewer than 50,000.¹⁵ The Census Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, the Commission estimates that 81,600 (96 percent) are small entities.

8. **Equipment Manufacturers.** We anticipate that at least six radio equipment manufacturers will be affected by our decisions in this proceeding. According to the SBA's regulations, a radio and television broadcasting and communications equipment manufacturer must have 750 or fewer employees in order to qualify as a small business concern.¹⁶ Census Bureau data indicate that there are 858 U.S. firms that manufacture radio and television broadcasting and communications equipment, and that 778 of these firms have fewer than 750 employees and would therefore be classified as small entities."

IV. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements

9. This 2nd **Report and Order** adopts rules to promote the transition to narrowband technology for private land mobile licensees, in the 150-174 MHz and 421-512 MHz bands. In particular, applications for operations on 25 kHz equipment will no longer be accepted six months after publication of this item in the Federal Register. Additionally, modification applications that expand the authorized contour of an existing licensee if the bandwidth subject to the modification application is greater than 12.5 kHz will be prohibited beginning six months after publication of this item in the Federal Register. On January 1, 2005, certification will not be afforded any equipment capable of operating at one voice path per 25 kHz of spectrum. Further, this 2nd **Report and Order** amends our current rules to prohibit the importation or manufacture of 25 kHz-only equipment beginning on January 1, 2008. All equipment utilized in non-public safety systems on or after January 1, 2018 must utilize a maximum channel bandwidth of 12.5 kHz. Lastly, all equipment utilized in public safety systems on or after January 1, 2018 must utilize a maximum channel bandwidth of 12.5kHz.

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organizations, school buses, beach patrols, establishments in isolated areas, communications standby facilities and emergency repair of public communication facilities. 47 C.F.R. §§ 90.33 through 90.55.

¹¹ See 13C.F.R. § 121.201 (NAICS Codes 513321, 513322, 513330)

¹² See 5 U.S.C. § 601(5) (including cities, counties, towns, townships, villages, school districts, or special districts).

¹³ 5 U.S.C. § 601(5).

¹⁴ U.S. Dept. of Commerce, Bureau of the Census, "1992 Census of Governments."

¹⁵ *Id.*

¹⁶ 13 C.F.R. § 121.201, Standard Industrial Code (SIC) 3663.

¹⁷ U.S. Dept. of Commerce, *1992 Census of Transportation, Communications and Utilities* (issued May 1995), SIC 3663.

V. **Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered**

10. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities?

11. The Commission adopted rules in this 2nd R&O upon consideration of the economic burden on small businesses. For instance, many commenters supposed adoption of rules that would require conversion to 12.5 kHz equipment as early as January 1, 2005. Such a proposal fails to give any consideration to the amortization and life-span of current equipment and the resources available to small entities. Rather than require small business licensees to convert its system to 12.5 kHz or equivalent technology beginning on January 1, 2005, we delay mandatory migration to 12.5 kHz or equivalent technology until January 1, 2013 for non-public safety PLMR systems and until January 1, 2018 for public safety systems. Similarly, our proposed rule changes permit modification to existing licensees while the comments did not reflect such a consideration. We rejected a phased approach that would have burdened licensees to determine which market and which date applied to them. Although we also take intermediary steps to promote migration to 12.5 kHz equipment, we note that none of the intermediary steps require the incumbent to immediately cease use of 25 kHz equipment. Exemption from coverage of the rule changes for small businesses would frustrate the purpose of the rule, *i.e.*, migration to more efficient spectrum use, and facilitate continued inefficient use of spectrum.

Report to Congress: The Commission will send a copy of this **Second Report and Order and Second Further Notice of Proposed Rule Making**, including this FRFA, in a report to be sent to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996, *see* 5 U.S.C. § 801(a)(1) (A). In addition, the Commission will send a copy of the **Second Report and Order and Second Further Notice of Proposed Rule Making**, including this FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the **Second Report and Order and Second Further Notice of Proposed Rule Making** and FRFA (or summaries thereof) will also be published in the Federal Register. *See* 5 U.S.C. § 604(b).

¹⁸ *See* 5 U.S.C. § 603(c).

APPENDIX D
INITIAL REGULATORY FLEXIBILITY ANALYSIS FOR
SECOND FURTHER NOTICE OF PROPOSED RULE MAKING

1. As required by the Regulatory Flexibility Act ("RFA"),¹ the Commission has prepared this present Initial Regulatory Flexibility Analysis ("IRFA") of the possible significant economic impact on small entities by the policies and rules proposed in this Second Further Notice of Proposed Rule Making ("2nd Further Notice"). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on this Further Notice provided above in paras. 30-33, *supra*. The Commission will send a copy of the 2nd Further Notice, including this **IRFA**, to the Chief Counsel for Advocacy of the **Small** Business Administration ("SBA").² In addition, the 2nd Further Notice and IRFA (or summaries thereof) will be published in the Federal Register.'

A. Need for, and Objectives of, the Proposed Rules:

2. The purpose of this 2nd Further Notice is to determine whether it would be in the public interest, convenience, and necessity to amend our rules governing private land mobile radio ("PLMR") licensees in the 150-174 MHz and 421-512 MHz bands in order to expedite the transition to 6.25 kHz narrowband technology. While the Commission sought comment regarding migration to 12.5 kHz technology in the *Further Notice of Proposed Rule Making* in this docket, the Commission did not seek comment regarding migration to 6.25 kHz technology.

3. Additionally, in this 2nd R&O, we amended our rules to impose a deadline of January 1, 2013 for mandatory migration to 12.5 kHz technology for non-public safety PLMR systems and a deadline of January 1, 2018 for mandatory migration to 12.5 kHz technology for public safety PLMR systems, and took other actions to encourage users to migrate from 25 kHz bandwidth to 12.5 kHz bandwidth before that date. In that connection, additional channels (*i.e.*, the 12.5 kHz channel between the center frequencies of each current 25 kHz channel) will become available due to increased spectral efficiency. Commenters speculate concerning the use of these additional **channels**.⁴ However, the Commission did not seek comment concerning the use of the newly available spectrum. We take this opportunity to solicit comment regarding the use of vacant channels created by migration to 12.5kHz technology

B. Legal Basis:

4. Authority for issuance of this Second Further Notice is contained in Sections 4(i), 303(r), and 332(a)(2) of the Communications Act of 1934, as amended.'

¹ See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 *et. seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title 11 of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

² See 5 U.S.C. § 603(a).

³ See *id.*

⁴ See, e.g., API Comments at 6 (suggesting that commercial services providers would stand to gain additional channel assignments); AMTA Comments at 3 (acknowledging the broader public interest in maximizing the efficient use of limited spectrum resources); AAR Comments at 5 (recognizing the need for users of the radio spectrum to take steps to use this valuable national resource more efficiently); ITA Comments at 6 (stating that the entire **industry** would benefit from an increase in the amount of private **land** mobile channels available for use).

⁵ 47 U.S.C. §§ 154(i), 303(r), 332(a)(2).

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply:

5. The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted! Under the RFA, small entities may include small organizations, small businesses, and small governmental jurisdictions.⁷ The RFA generally defines the term “small business” as having the same meaning as the term “small business concern” under the Small Business Act.⁸ A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.⁹ A small organization is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”¹⁰ Nationwide, as of 1992, there were approximately 275,801 small organizations.”

6. The proposed rule amendments may affect users of public safety radio services and private radio licensees that are regulated under Part 90 of the Commission’s rules, and may also affect manufacturers of radio equipment. An analysis of the number of small entities affected follows.

7. *Public Safety radio services and Governmental entities.* Public safety radio services include police, fire, local governments, forestry conservation, highway maintenance, and emergency medical services.” The SBA rules contain a definition for small radiotelephone (wireless) companies, which encompasses business entities engaged in radiotelephone communications employing no more than 1,500 persons.” There are a total of approximately 127,540 licensees within these services. Governmental entities as well as private businesses comprise the licensees for these services. The RFA also includes

⁶ See 5 U.S.C. § 603(b)(3).

⁷ See 5 U.S.C. § 601(6).

⁸ Compare 5 U.S.C. § 601(3) (RFA) with 15 U.S.C. § 632 (SBA).

⁹ Small Business Act, 5 U.S.C. § 632 (1996).

¹⁰ 5 U.S.C. § 601(4).

¹¹ 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to the Office of Advocacy of the Small Business Administration).

¹² With the exception of the special emergency service, these services are governed by Subpart B of Part 90 of the Commission’s rules. 47 C.F.R. §§ 90.15 through 90.27. The police service includes 26,608 licensees that serve state, county and municipal enforcement through telephony (voice), telegraphy (code) and teletype and facsimile (printed material). The fire radio service includes 22,677 licensees comprised of private volunteer or professional fire companies as well as units under governmental control. The local government service that is presently comprised of 40,512 licensees that are state, county or municipal entities that use the radio for official purposes not covered by other public safety services. There are 7,325 licensees within the forestry service which is comprised of licensees from state departments of conservation and private forest organizations who set up communications networks among fire lookout towers and ground crews. The 9,480 state and local governments are licensed to highway maintenance service provide emergency and routine communications to aid other public safety services to keep main roads safe for vehicular traffic. The 1,460 licensees in the Emergency Medical Radio Service (EMRS) use the 39 channels allocated to this service for emergency medical service communications related to the actual delivery of emergency medical treatment. 47 C.F.R. §§ 90.15 through 90.27. The 19,478 licensees in the special emergency service include medical services, rescue organizations, veterinarians, handicapped persons, disaster relief organizations, school buses, beach patrols, establishments in isolated areas, communications standby facilities and emergency repair of public communication facilities. 47 C.F.R. §§ 90.33 through 90.55.

¹³ See 13 C.F.R. § 121.201 (SIC Code 4812).

small governmental entities as a part of the regulatory flexibility analysis.¹⁴ “Small governmental jurisdiction” generally means “governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000.”¹⁵ As of 1992, there were approximately 85,006 such jurisdictions in the United States.¹⁶ This number includes 38,978 counties, cities and towns; of these, 37,566, or 96 percent, have populations of fewer than 50,000.¹⁷ The Census Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, the Commission estimates that 81,600 (96 percent) are small entities.

8. *Estimates for PLMR Licensees.* Private land mobile radio systems serve an essential role in a vast range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories. Because of the vast array of PLMR users, the Commission has not developed a definition of small entities specifically applicable to PLMR users, nor has the SBA developed any such definition. The SBA rules do, however, contain a definition for small radiotelephone (wireless) companies.¹⁸ Included in this definition are business entities engaged in radiotelephone communications employing no more than 1,500 persons.¹⁹ Entities engaged in telegraph and other message communications with no more than \$5 million in annual receipts also qualify as small business concerns.²⁰ According to the Bureau of the Census, only twelve radiotelephone firms of a total of 1,178 such firms which operated during 1992 had 1,000 or more employees. For the purpose of determining whether a licensee is a small business as defined by the SBA, each licensee would need to be evaluated within its own business area. The Commission’s fiscal year 1994 annual report indicates that, at the end of fiscal year 1994, there were 1,101,711 licensees operating 12,882,623 transmitters in the PLMR bands below 512 MHz.²¹

9. *Equipment Manufacturers.* We anticipate that at least six radio equipment manufacturers will be affected by our decisions in this proceeding. According to the SBA’s regulations, a radio and television broadcasting and communications equipment manufacturer must have 750 or fewer employees in order to qualify as a small business concern.²² Census Bureau data indicate that there are 858 U.S. firms that manufacture radio and television broadcasting and communications equipment, and that 778 of these firms have fewer than 750 employees and would therefore be classified as small entities.²³

¹⁴ See 5 U.S.C. § 601(5) (including cities, counties, towns, townships, villages, school districts, or special districts).

¹⁵ 5 U.S.C. § 601(5)

¹⁶ U.S. Dept. of Commerce, Bureau of the Census, “1992 Census of Governments.”

¹⁷ *Id.*

¹⁸ See 13 C.F.R. § 121.201 (SIC Code 4812).

¹⁹ *Id.*

²⁰ *Id.* (SIC Code 4822).

²¹ See Federal Communications Commission, 60th Annual Report, Fiscal Year 1994 at 120-121

²² 13 C.F.R. § 121.201, Standard Industrial Code (SIC) 3663.

²³ U.S. Dept. of Commerce, 1992 Census of Transportation, Communications and Utilities (issued May 1995), SIC 3663.

D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements:

10. Possible requirements under consideration in this Second Further Notice would impose use of new narrowband technology at least one voice path per 6.25 kHz of spectrum by a date certain. Assuming the rules adopted in the 2nd R&O are a good model for the transition to 6.25 kHz narrowband technology (which assumption has yet to be established), the Commission might require licensees to convert to 6.25 kHz operation by a date certain; and/or establish dates after which equipment capable of operating at a higher bandwidth could no longer be certified, manufactured or imported; or freeze the filing of new applications for 12.5 kHz operation. These steps may be necessary to facilitate efficient management and use of spectrum.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered:

11. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule or any part thereof for small entities.²⁴

12. The objective in the *Refarming* proceeding was to provide a means to transition licensees to 6.25 kHz technology, *see* para. 27, *supra*. Migration to 12.5 kHz technology was viewed as a stepping stone to operation at 6.25 kHz technology, *see id.* However, requiring the use of 6.25 kHz technology by a date certain could impact some small entities requiring them to upgrade their communications systems before they would otherwise do so. An alternative would be to maintain the current rules, which are intended to foster migration to narrowband technology by way of progressively more stringent type certification requirements. We issue this *Second Further Notice* in order to consider whether a change in the Rules would benefit small entities and other PLMR licensees.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules:

13. None

²⁴ *See* 5 U.S.C. §603(c)